PATENT ABSTRACTS OF JAPAN

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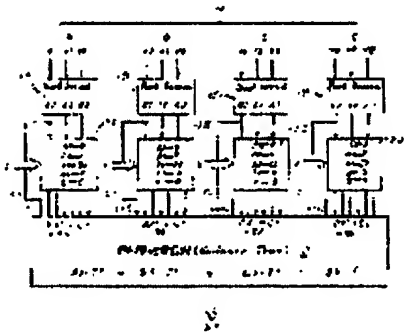
(54) MULTIPLIER CIRCUIT

(57)Abstract:
PURPOSE: To simplify the constitution of a logic circuit obtained a partial product and to speed up remarkably its action by taking a complement of '1' by the algorithm of a booth obtaining a partial product and adding '1' by a Wallence addition tree where a command taking a complement of '2' is given.
CONSTITUTION: Logic operation circuits 2AW2D are constituted so as to take a '1' complement of a multiplicand X if the command taking a '2' complement of the multiplicand X is issued from decoders 1AW1D. If the command taking a '2' complement of the multiplicand X is issued from the decoders 1AW1D, it is directly inputted to an adder circuit 3 as addition data adding one to a complement '1' of the multiplicand X. When a signal C1 becomes active, the corresponding logic operation circuits 2AW2D take the complement of '1' of the multiplicand X, and simultaneously the adder circuit 3 adds outputs (AX', BX', CX' and DX') from the logic operation circuits 2AW2D according to the Wallence tree system. The adder circuit 3 adds one to the output where the signal C1 becomes active.



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